

Application No. 09/964,221  
SD-6750

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## REMARKS

### Claim Status:

Claims 2-22 and 42-47 are pending.

Claims 2-22 and 42-47 are rejected.

Claims 1 and 23-41 are cancelled.

### Claim Objections

Claim 42 was objected to because of the following informality: "e) if D <", perhaps "h)" was intended. The examiner is correct. Accordingly, claim 42 is currently amended to replace "e)" with "h)", as suggested by the examiner.

The objection has been overcome.

### Claim Rejections

#### Rejections under 35 USC §112, Second Paragraph

Claims 2-3, 5, 9, 17, 20, 22 and 43-45 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In claims 2-3, 5, 9, 17, 20 and 22 there is insufficient antecedent basis for the limitation "*the method of claim 42*".

Applicants respectfully **traverse**. Claim 42 is a proper claim. Hence, there **does appear to be a sufficient antecedent basis using for the limitation "the method of claim 42"** in dependent claims 2-3, 5, 9, 17, 20 and 22.

Perhaps the applicants do not understand the basis for the examiner's rejection.

Accordingly, the rejection of claim 42 has been overcome.

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The office also stated that the limitations "Y<sub>j</sub>(reference)" and "U<sub>j</sub>(reference)" in claims 43-45 have insufficient antecedent basis. Claims 43-45 depend from claim 42.

In claim 42, the limitation "Y<sub>j</sub>(reference)" is properly defined in the 2<sup>nd</sup> to 4<sup>th</sup> lines of claim 42 as follows:

"where  $Y_{ref}$  is an  $n$ -dimensional row vector  $\{Y_1(ref), Y_2(ref), \dots, Y_n(ref)\}$  of unencrypted reference measurements".

Also, in claim 42, the limitation "U<sub>j</sub>(reference)" is properly defined in the 5<sup>th</sup> to 6<sup>th</sup> lines of claim 42 as follows:

"where  $U_{ref}$  is an  $n$ -dimensional row vector  $\{U_1(ref), U_2(ref), \dots, U_n(ref)\}$  of encrypted reference measurements".

Perhaps the examiner is objecting to use of the full word "reference" in claims 43-45, wherein the shortened version of the word is used in claim 42, i.e., "ref". In fact, they refer to the same thing.

Nevertheless, in an effort to gain allowance of claims 43-45, applicants have currently amended claims 43-45 by replacing the limitation "Y<sub>j</sub>(reference)" with "Y<sub>j</sub>(ref)"; and by replacing the limitation "U<sub>j</sub>(reference)" with "U<sub>j</sub>(ref)". This, then, provides an exact correspondence with the terms used in independent claim 42; thereby providing a proper antecedent basis for their subsequent use in claims 43-45.

Accordingly, the rejection of claims 43-45 has been overcome.

#### Rejections under 35 USC §101

Claims 2-22 and 42-47 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, claim 42 does not produce a tangible result (deciding), and the result of the comparison is not stored, displayed, transmitted, or output. Furthermore, claims 42-47 recite a mathematical algorithm and therefore are non-statutory.

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In response, applicants have amended independent claim 42 to recite the additional step:

i) providing the result of the decision made in step h) to an authenticator or inspector, thereby allowing the authenticator or inspector to decide if the item is authentic;

Also, step h) recites "**deciding** that the item is authentic", which is a **tangible and useful result**.

Hence, claim 42 now recites a "**useful process**" that provides information to an authenticator or inspector that allows that person to decide if the item is authentic (or not), based upon making a very simple comparison of two numbers, namely: "is  $D < D_{crit}$ ?".

Accordingly, the subject matter of claim 42, and its dependent claims 2-22 and 43-47, meets the requirements of 35 USC 101; and the rejection has been overcome.

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CONCLUSION

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Applicants have responded to each and every objection and rejection, and urge that claims claims 2-22 and 42-47 as presented and amended are now in condition for allowance. Applicants request expeditious processing to issuance.

The Office is authorized to charge Deposit Account # 19-0131 for any necessary fees regarding this response, including any fees necessary for extensions of time to reply.

Respectfully submitted,

Robert D. Watson

Robert D. Watson  
Reg. No. 45,604

Ph: (505) 845-3139  
Fax: (505) 845-2391

e-mail: [rdwatso@sandia.gov](mailto:rdwatso@sandia.gov)

Sandia National Laboratories  
P.O. Box 5800 MS-0161  
Albuquerque, NM 87185-0161

Customer No. 20567

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Robert D. Watson

Robert D. Watson